

21th Annual Workshop of the National Reference Laboratories for Fish Diseases,
Copenhagen, Denmark, May 30th-31th, 2017

Update of the disease situation in Norway

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Veterinærinstituttet
Norwegian Veterinary Institute

Data

Notifiable diseases:

Data from NVI

Non-notifiable diseases:

Data from NVI

Data from private laboratories

Data from a questionnaire

Official data

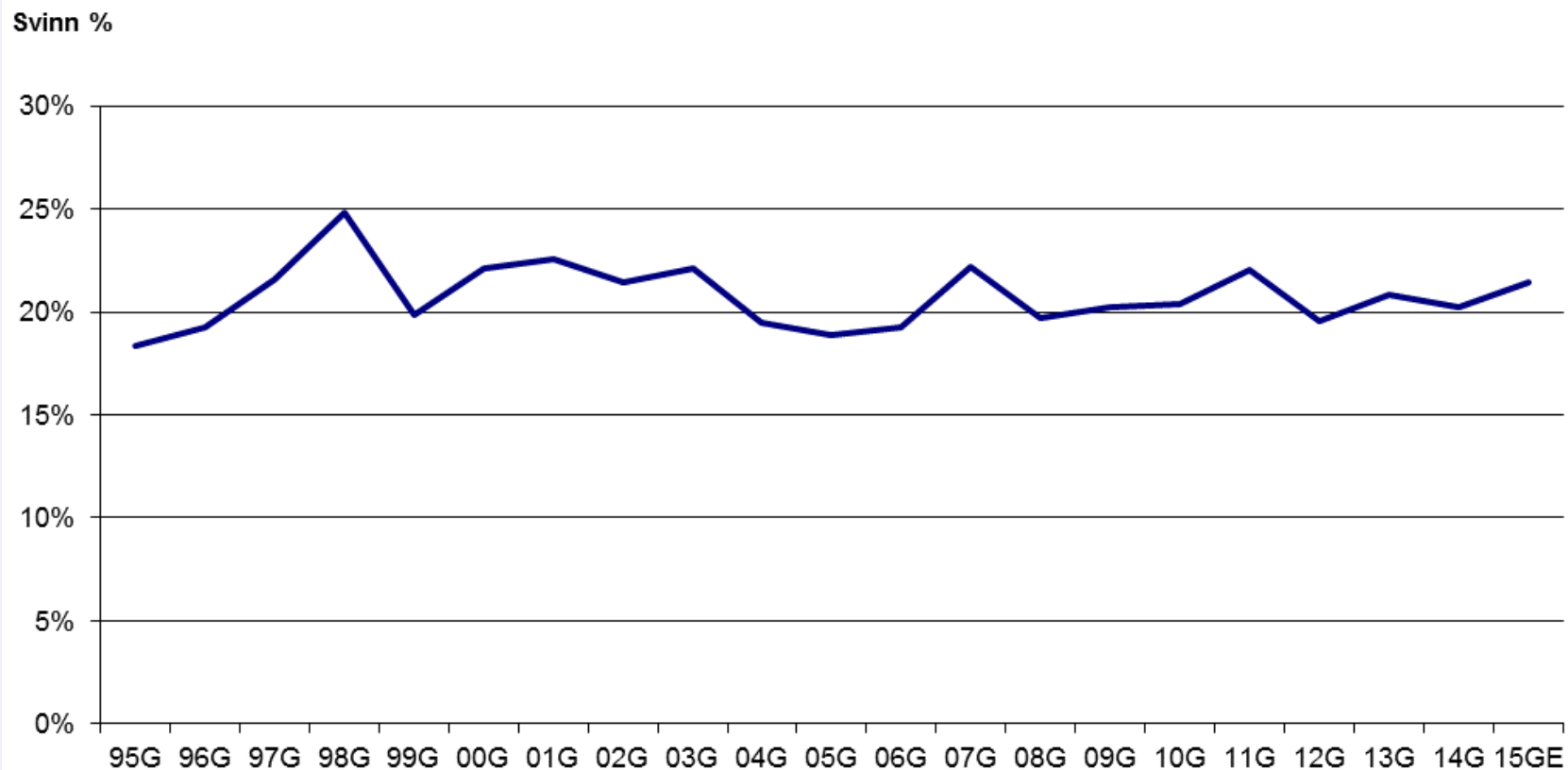
Fiskehelse rapporten
2016



 Veterinærinstituttet
Norges veterinærinstitutt

Losses in aquaculture after transfer to sea (Atlantic salmon)

Atlantisk laks Norge - Svinnutvikling*,
% av antall utsatt - per generasjon



A photograph showing several salmon lice and their eggs on a light blue, textured surface. One large, dark, elongated lice is at the top left. Two smaller, dark, oval-shaped eggs are at the bottom left. Two long, thin, yellowish, curved structures, likely antennae or legs, extend from the eggs towards the right. The background is a light blue, textured surface.

Salmon lice

Impact: 4,5-5,0

Increasing resistance to
anti sea lice chemicals

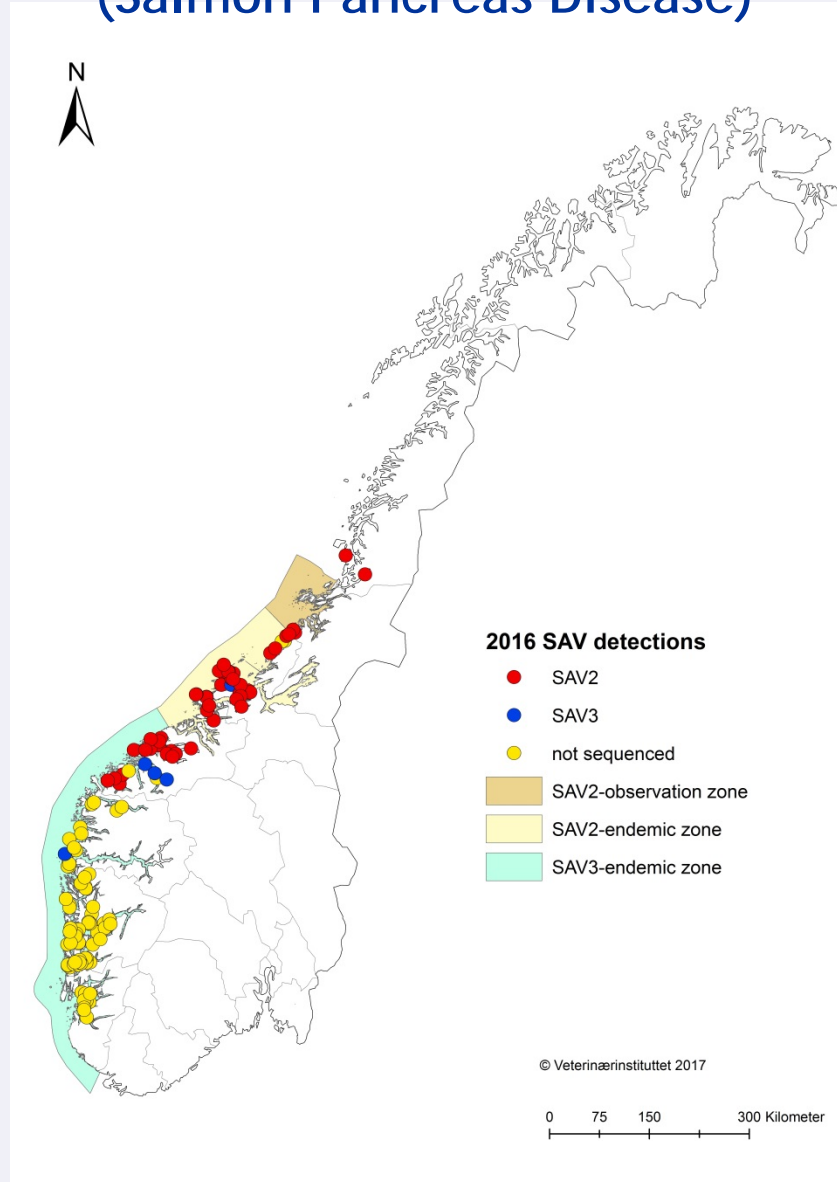


- A shift to use of cleaner fish and mechanical treatment.
- Cleaner fish: Welfare and biosecurity
- Mechanical de-licing: Increased injuries

- Impact mechanical injuries: 4,0



Infections with Salmonid Alphavirus (Salmon Pancreas Disease)



2016:	138
2015:	137
2014:	142
2013:	99
2012:	137

Impact:

Total: 3,4

Nord: 1,5

Midt: 3,3

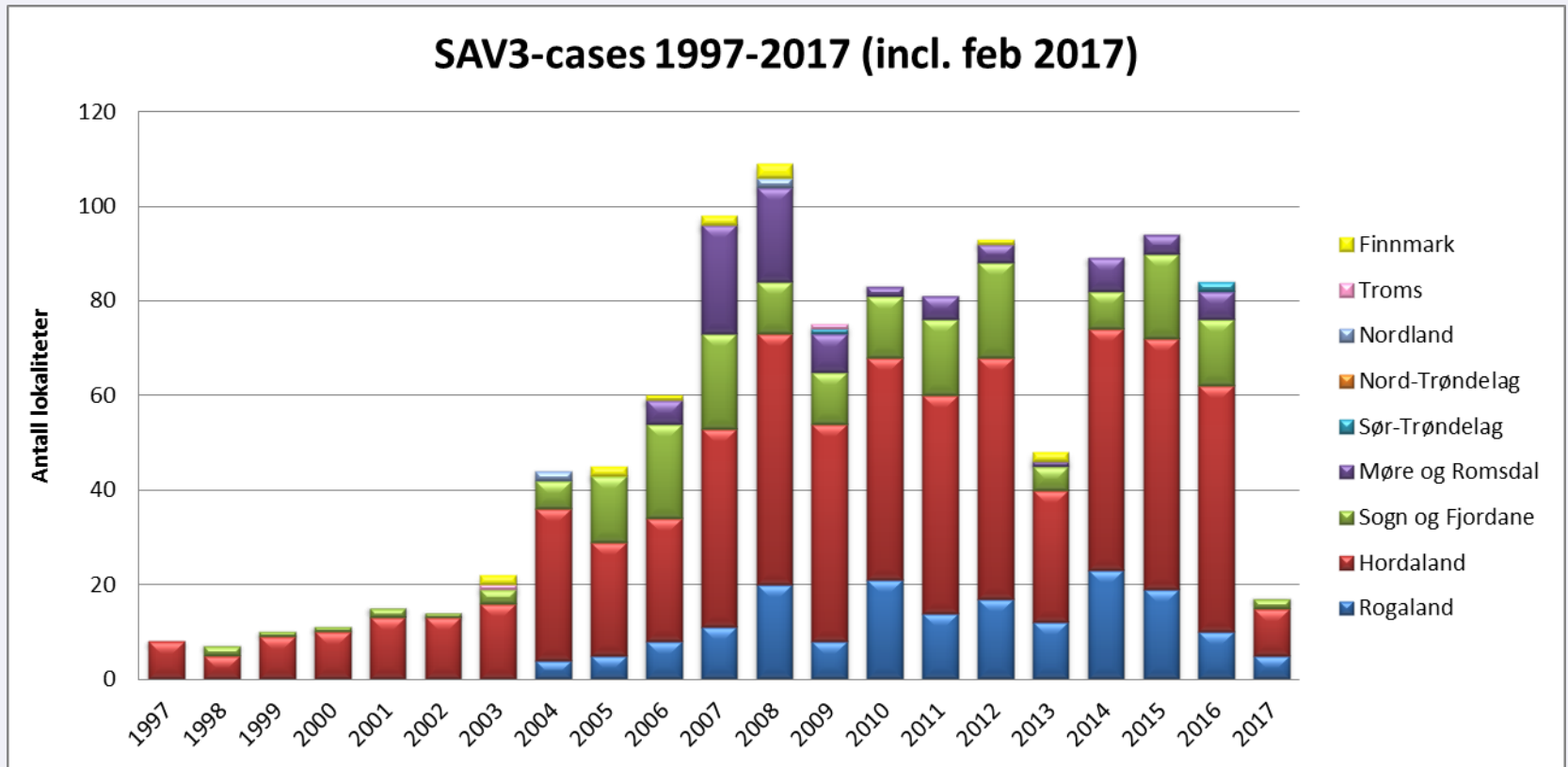
NordV : 4,2

SydV: 4,8



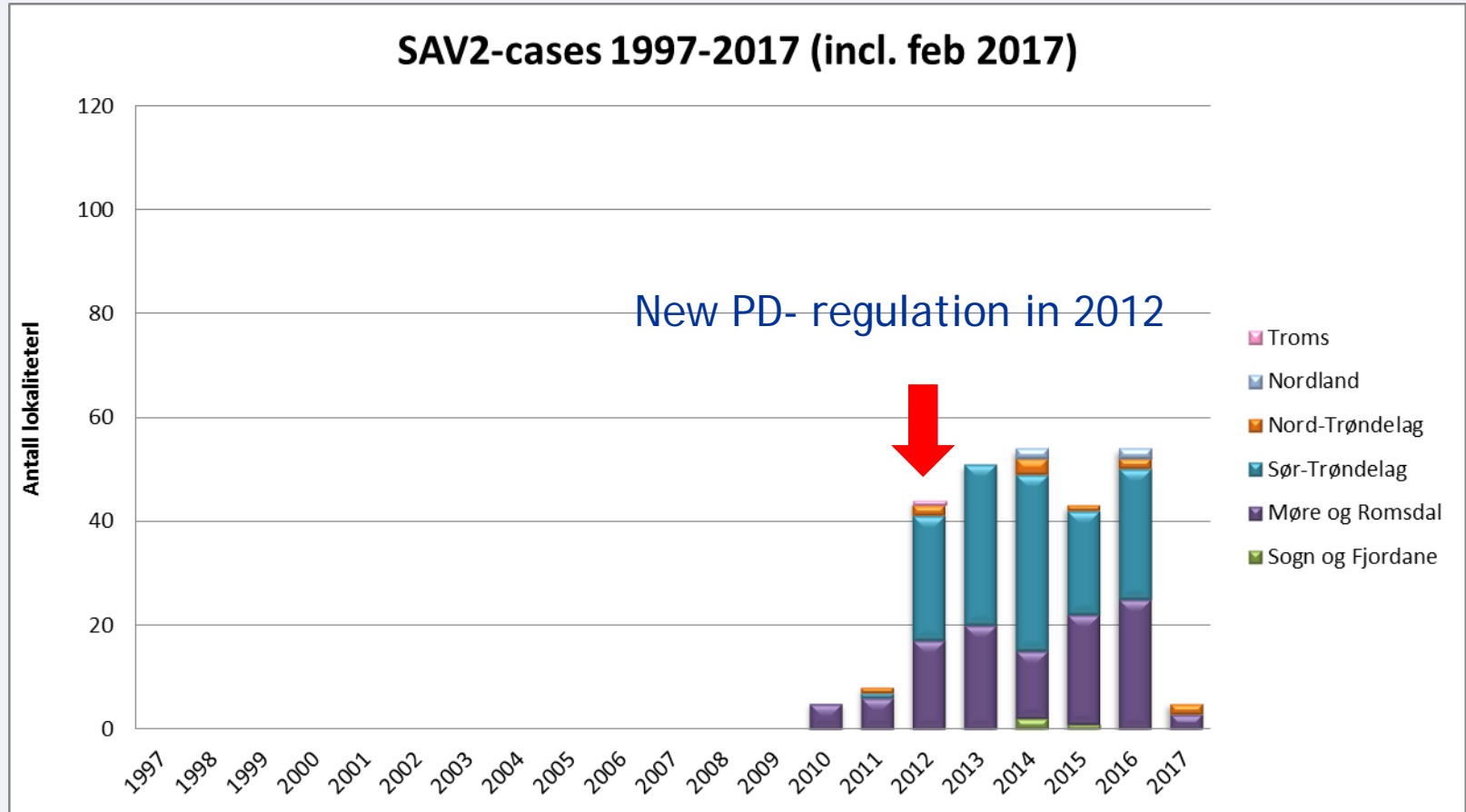
Occurrence by county, SAV3

84 - 2016

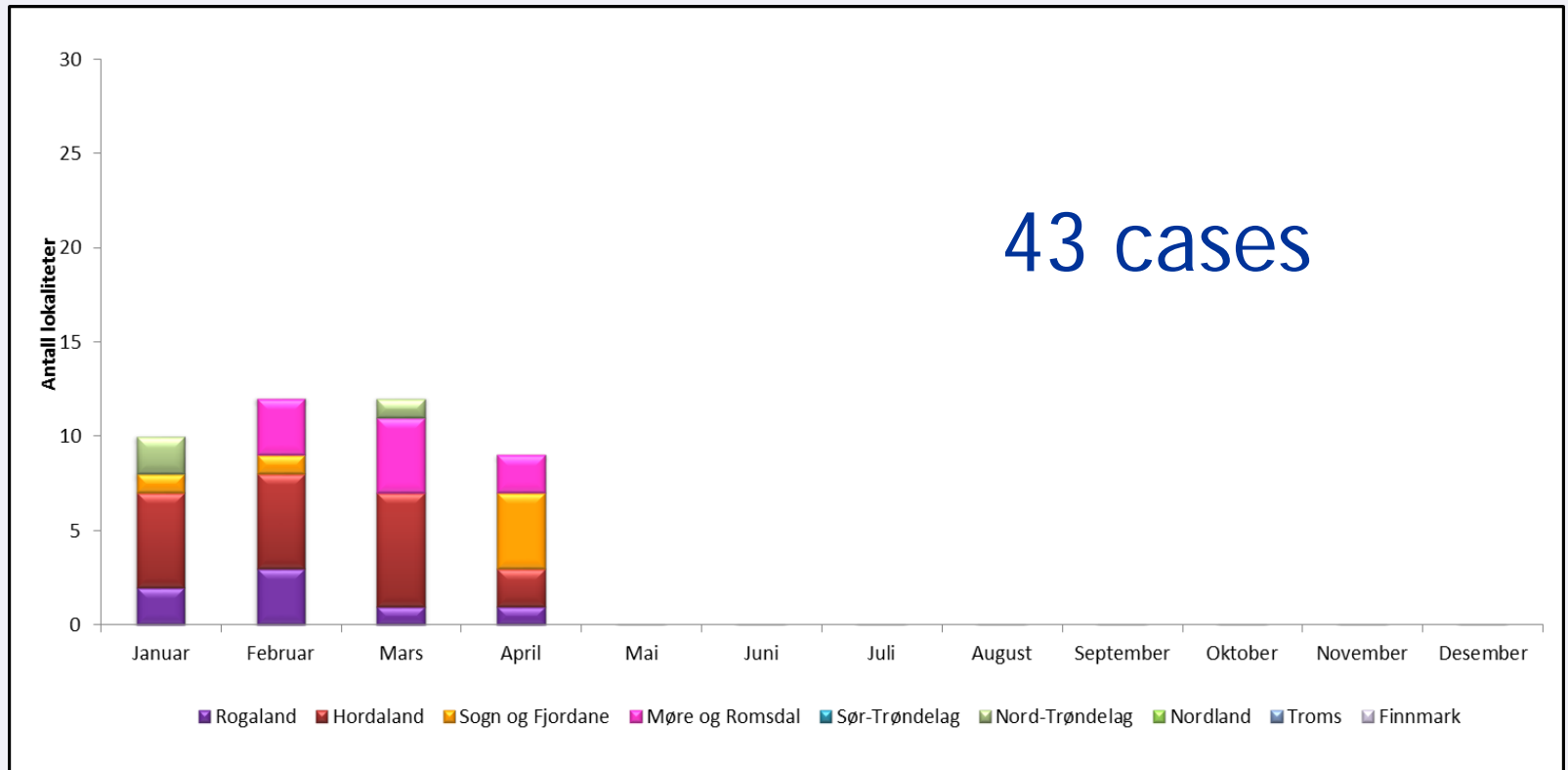


Occurrence by county, SAV2

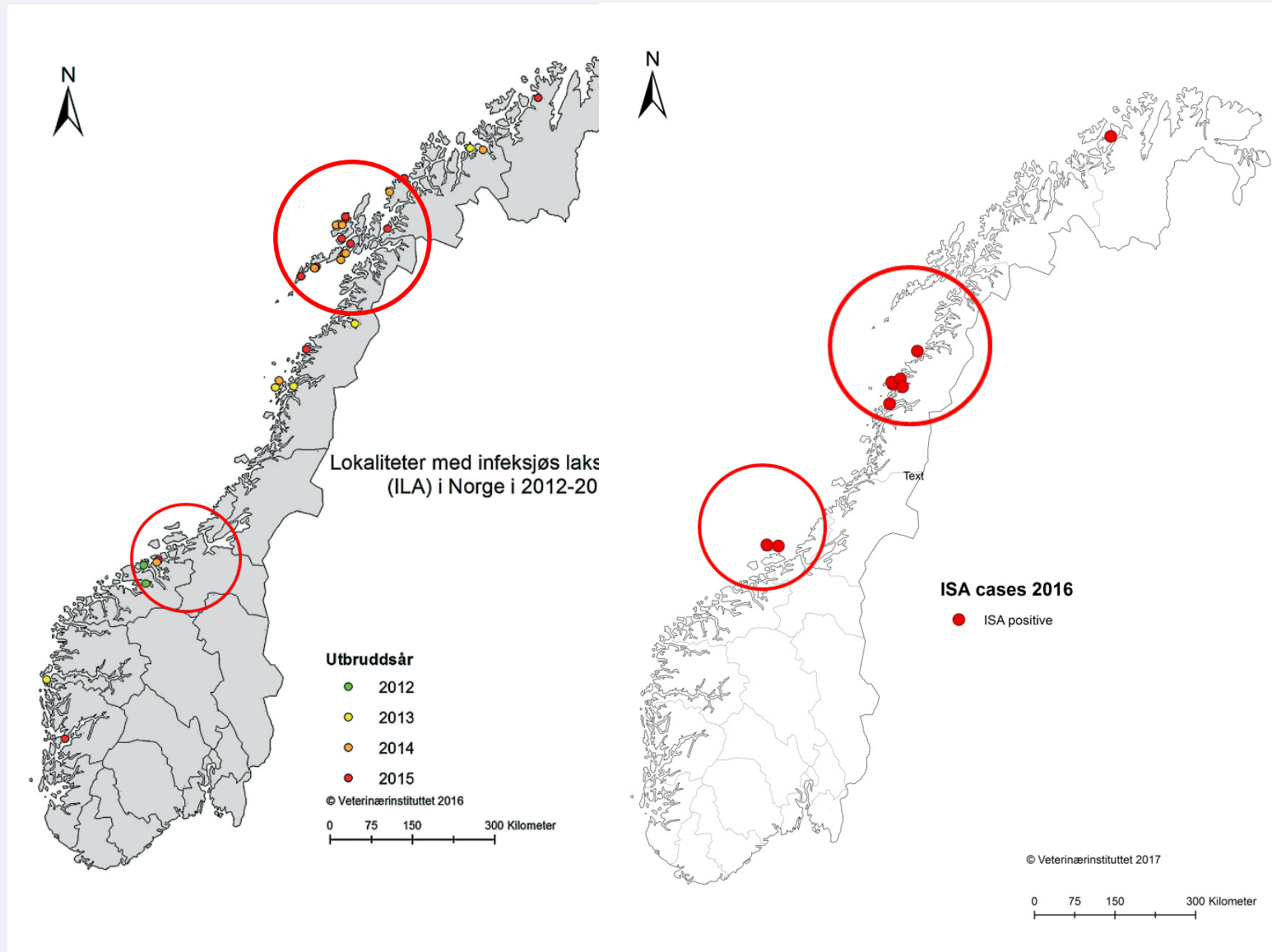
54 - 2016



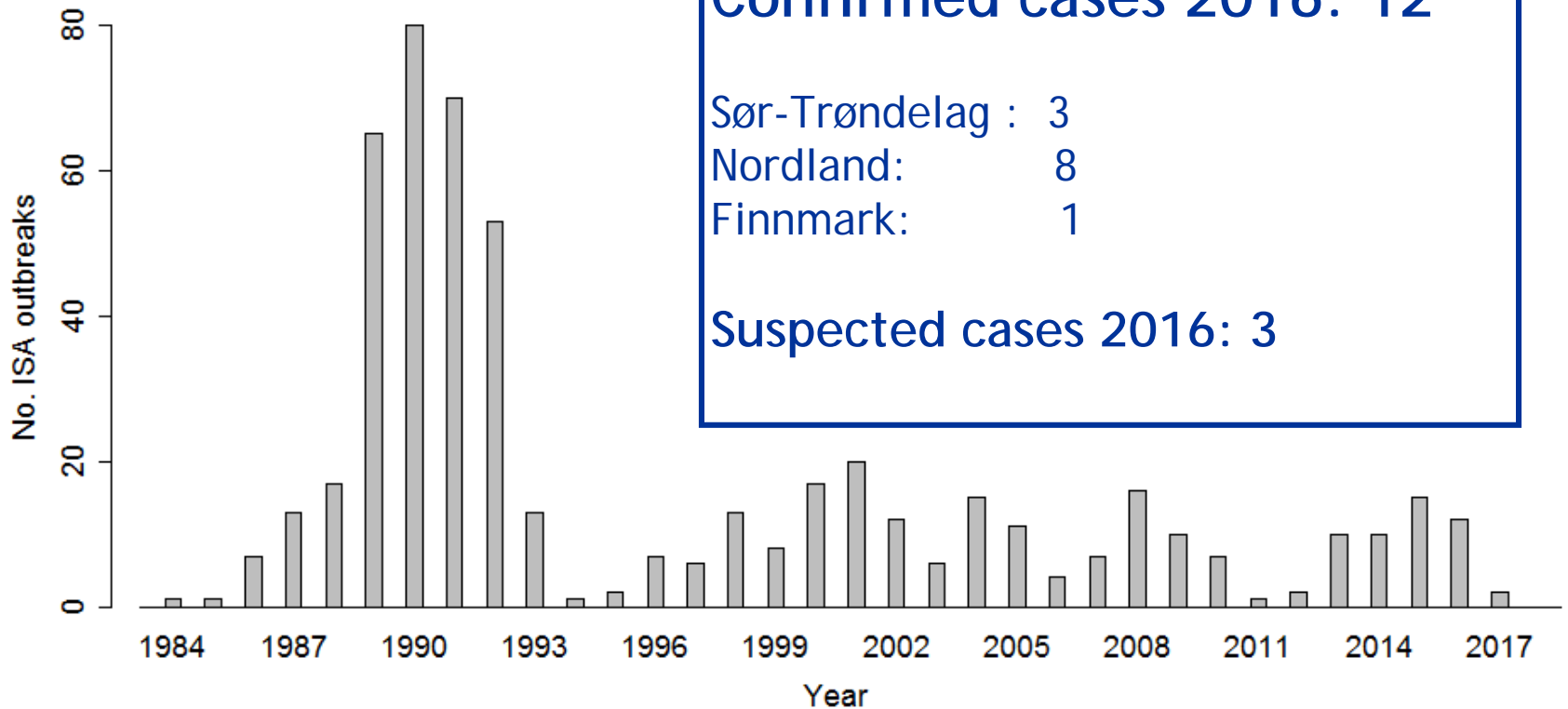
April 2017



Infectious salmon anaemia (ISA)

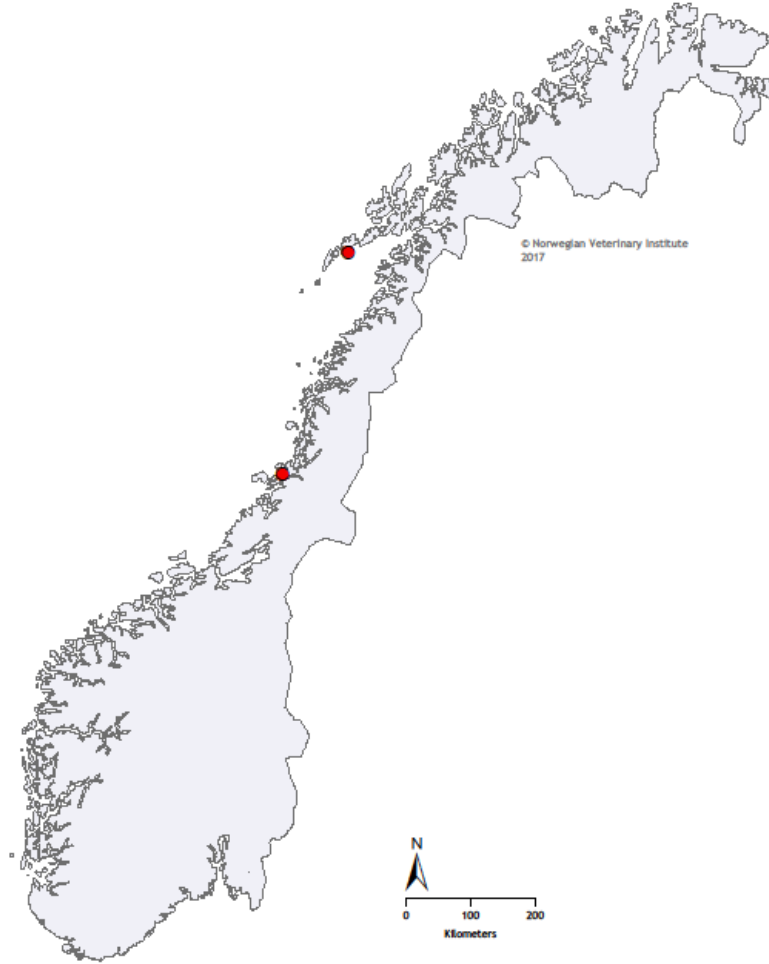


ISA outbreaks 1984 - 2017

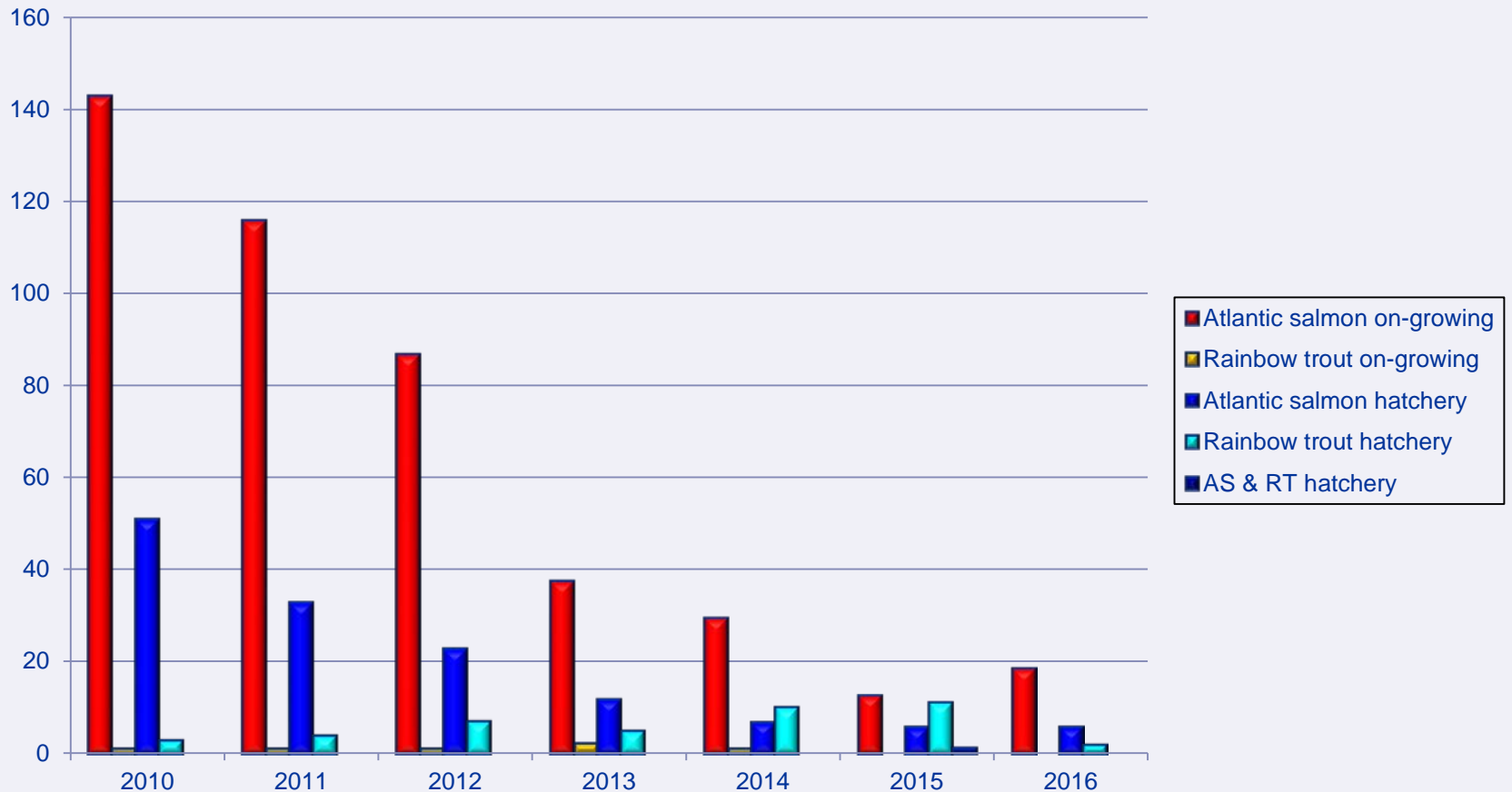




**Stadfestede ILA utbrudd 2017
per 2 mai**



Infectious pancreatic necrosis (IPN)

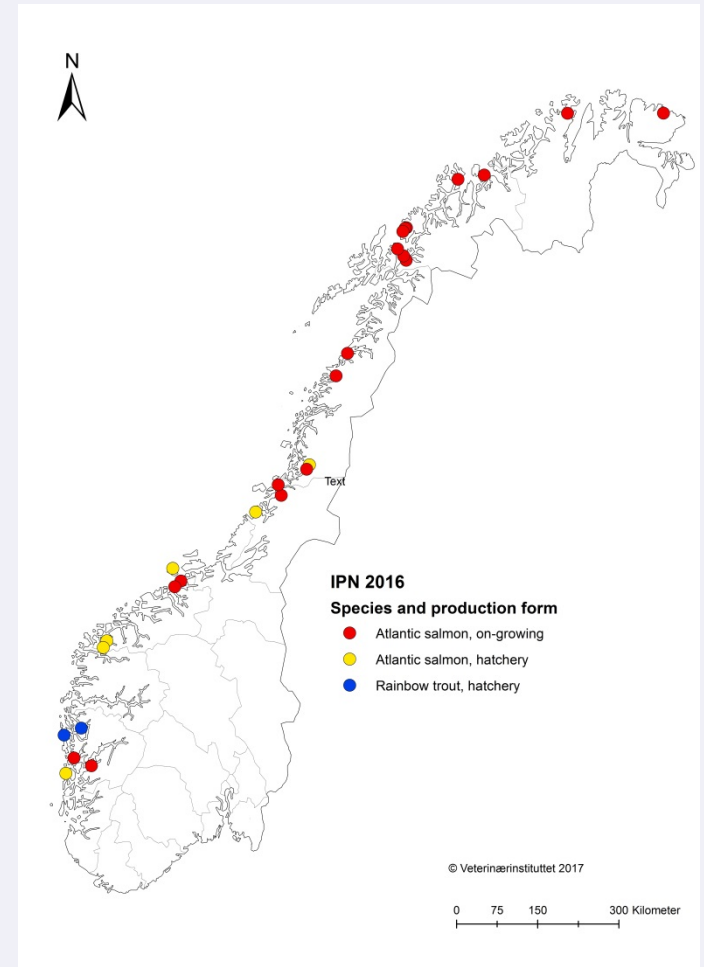


Number of sites with IPN, distribution in salmon, rainbow trout, hatcheries and on-growing sites 2009-2016

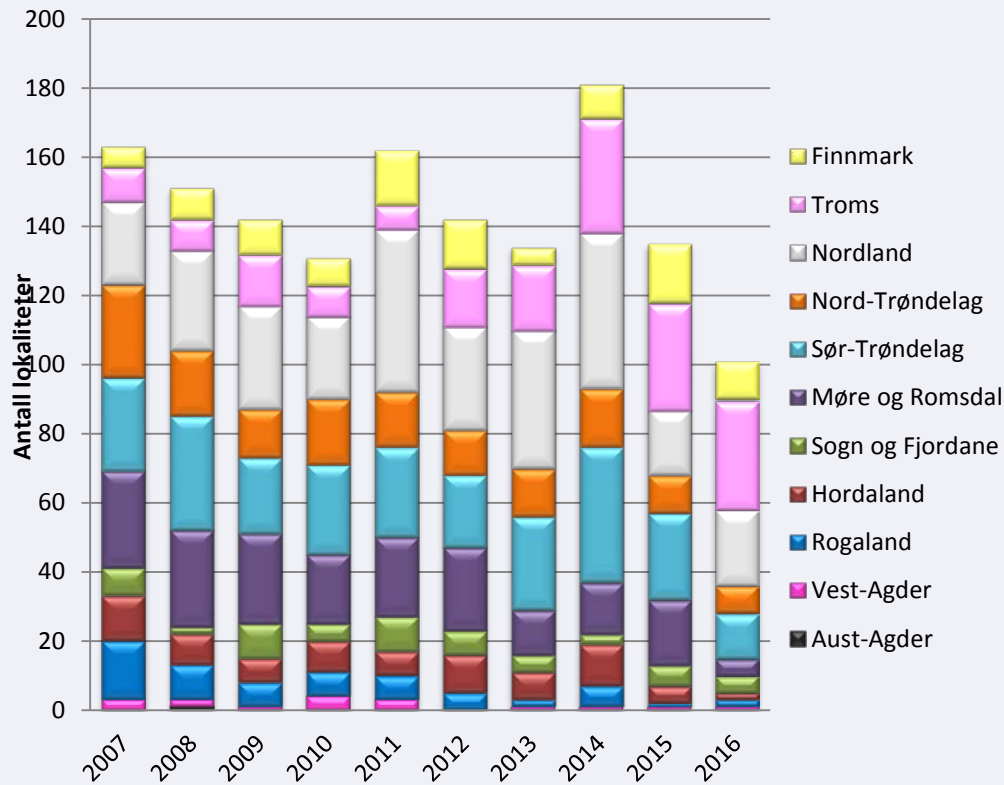


Infectious pancreatic necrosis (IPN)

	Total
2013:	56
2014:	48
2015:	30
2016	27



Heart and skeletal muscle inflammation (HSMI)



2016	101*	(202**)
2015	135*	(187**)
2014	181	
2013	134	
2012	142	
2011	162	
2010	131	

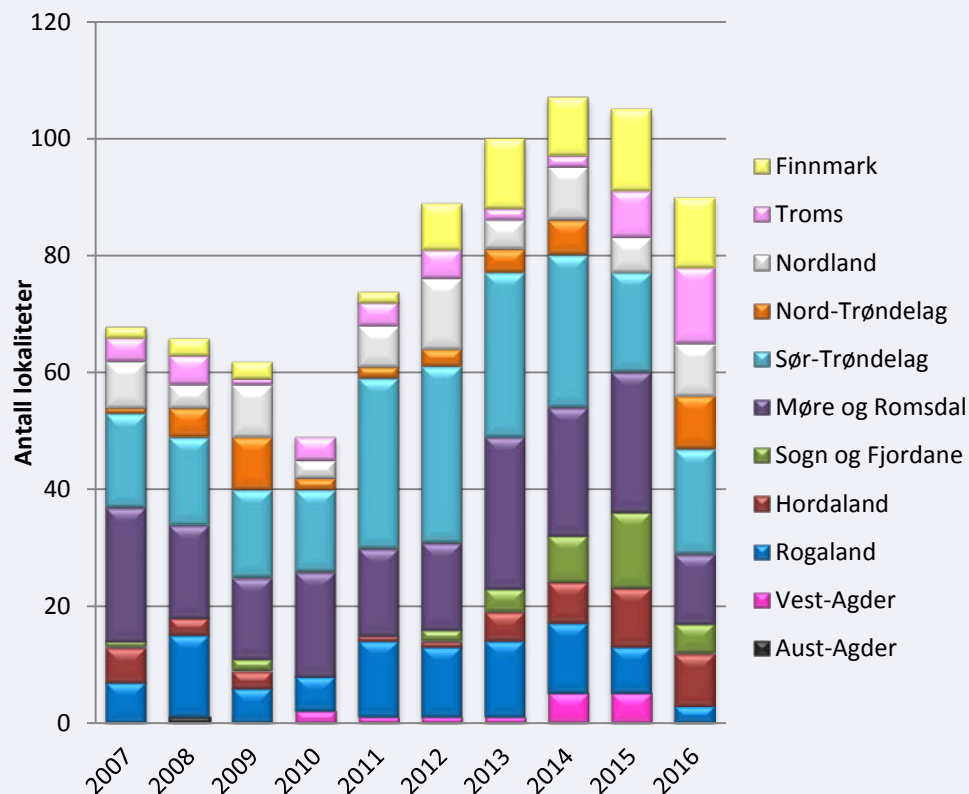
Impact	
Total	: 3,6
Nord	: 4,4
Midt	: 3,8
NordV	: 3,0
SydV	: 3,0



*Data from NVI. Data from private laboratories included

** Data from private laboratories included

Cardiomyopathy syndrome (CMS)



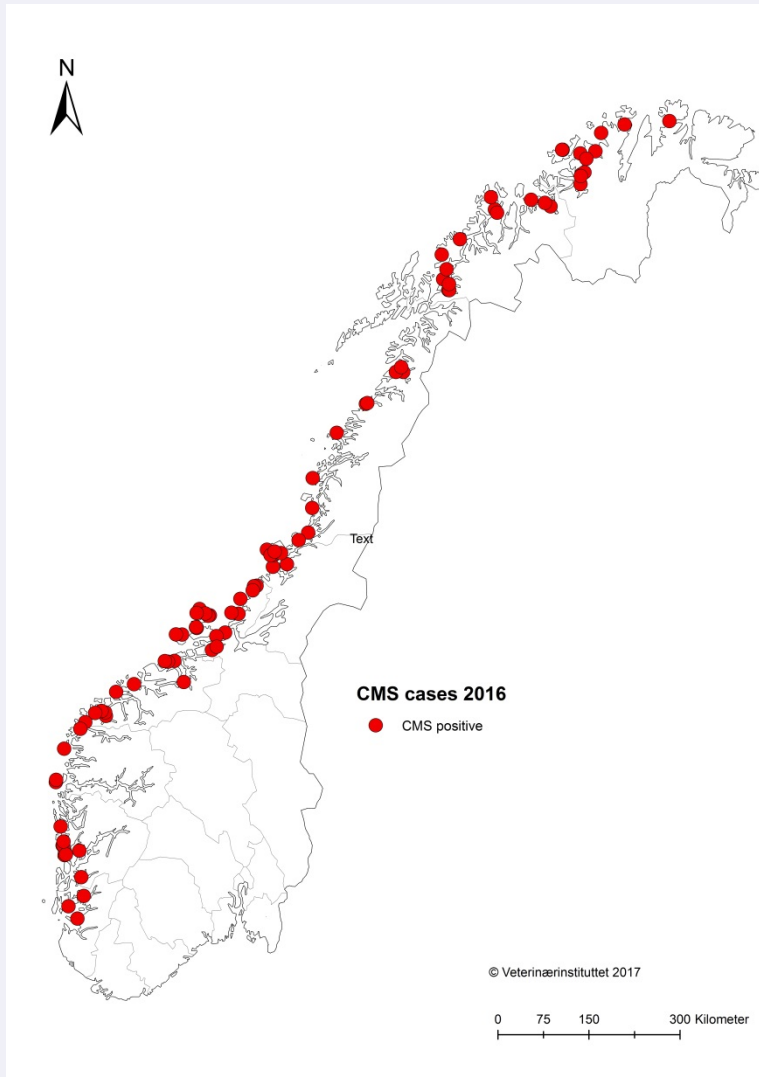
2016	90*	(146**)
2015	105*	(129**)
2014	107	
2013	100	
2012	89	
2011	74	

*Data from NVI. Data from private laboratories included

** Data from private laboratories included



Cardiomyopathy syndrome (CMS)



Impact

Total: 3,7

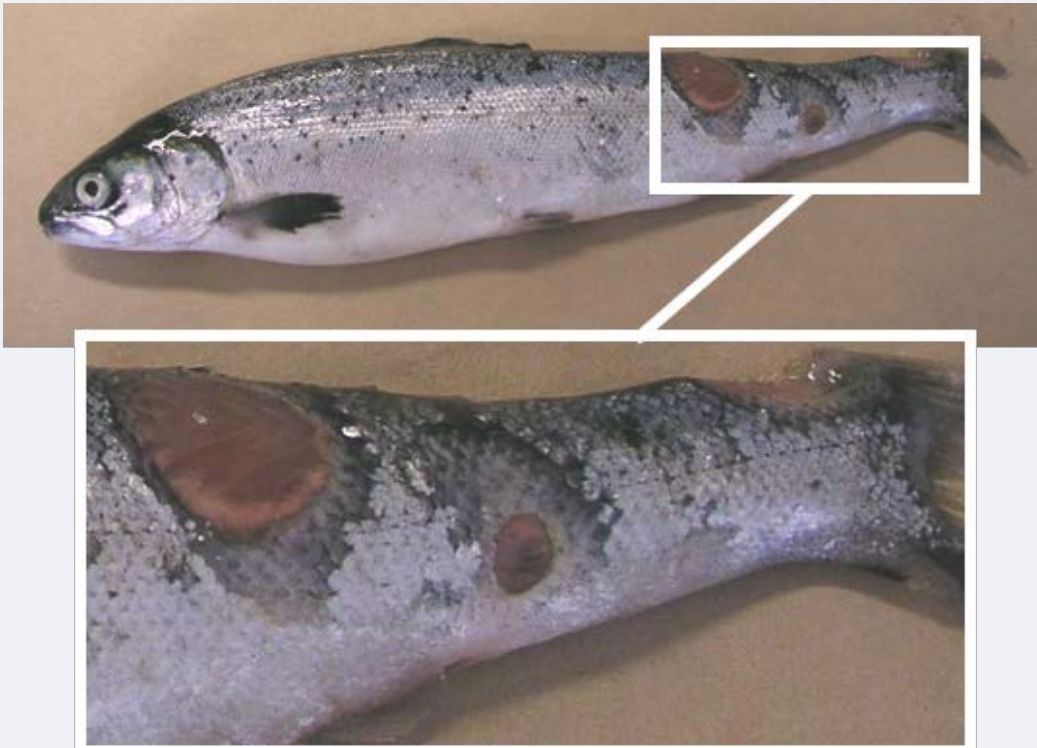
Nord: 4,2

Midt: 3,6

NordV: 3,2

SydV: 3,5

Ulcers



Impact:

Total: 3,0

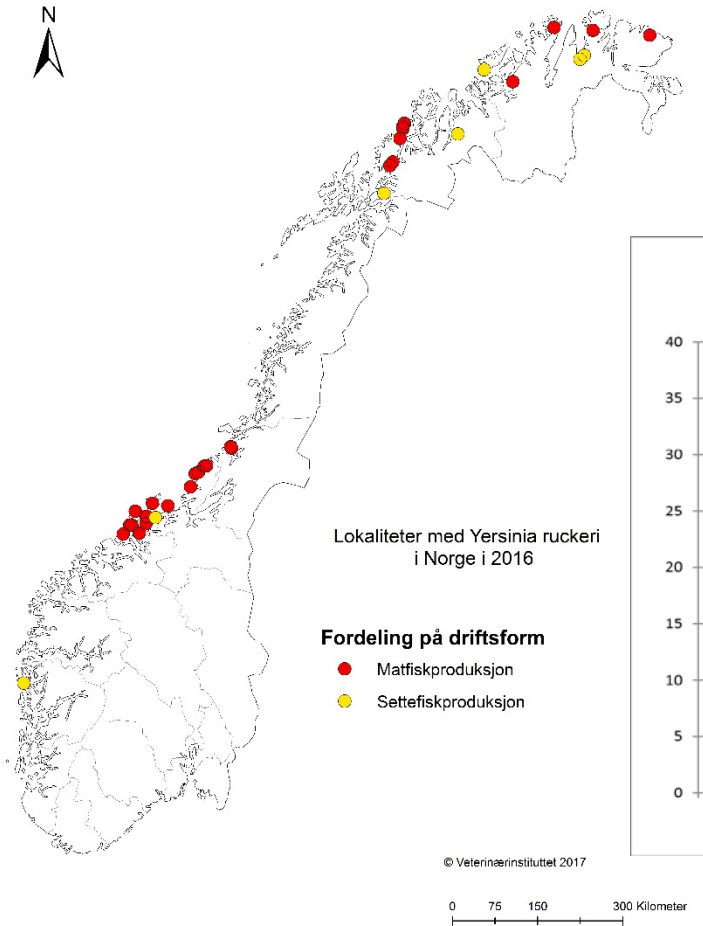
Nord: 3,6

Midt: 2,8

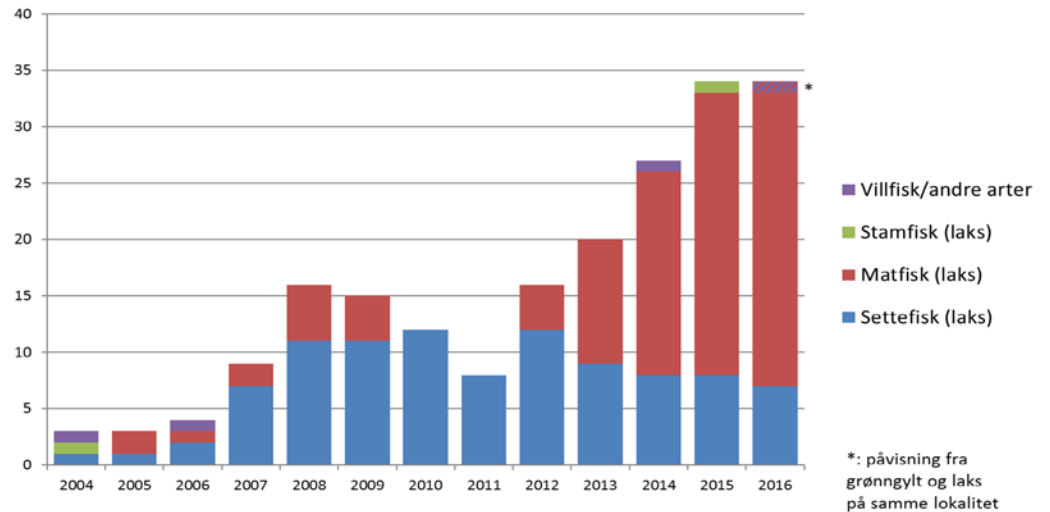
NordV: 2,0

SydV : 3,0

Yersinia



Antall lokaliteter med *Y. ruckeri* påvisning hos Veterinærinstituttet per år



AGD

Paramoeba perurans



2016

Detection (PCR) throughout the
year

From Agder to Nord-Trøndelag

Treatment from medio September



Gill Health - an increasing problem

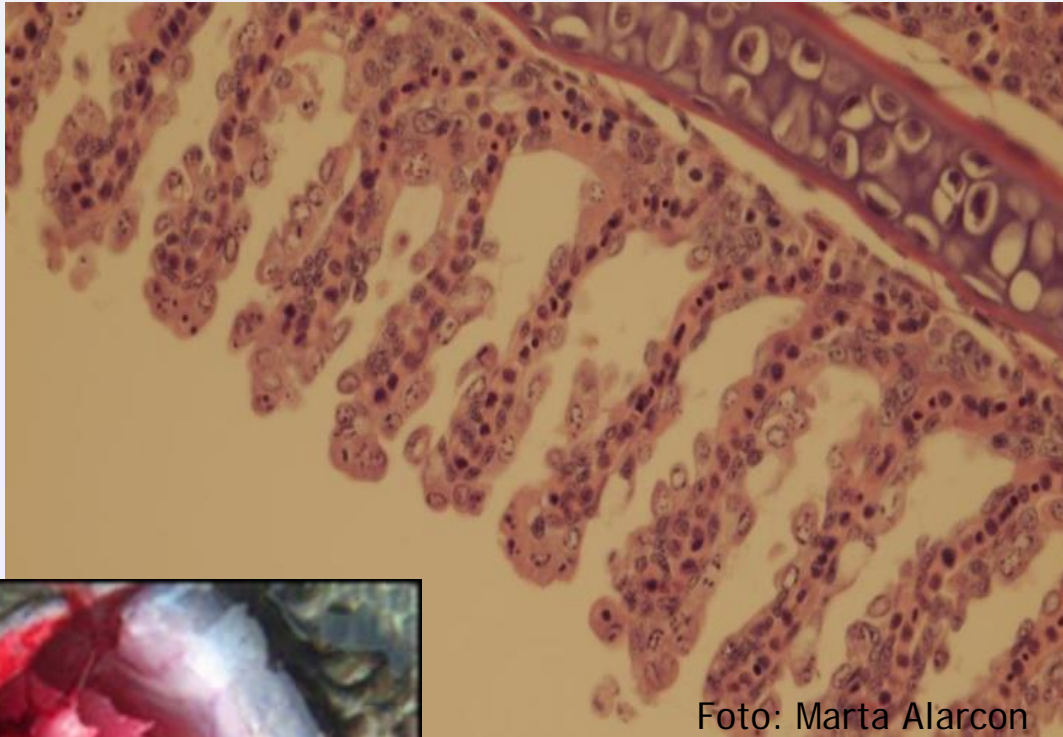


Foto: Marta Alarcon



Impact:

Total: 3,4

Nord: 2,8

Midt: 3,4

NordV: 4,5

SydV: 4,3

Cleaner fish



CONCLUSIONS

- Sea lice: Resistance to anti sea lice chemicals. Increasing mortalities associated with treatment. Welfare issue.
- SAV: Similar situation to 2015 with a high number of cases.
- ISA: Similar no of cases, but new area of concern in Northern Norway
- HSMI: Similar situation ?
- CMS: Tend to increase?
- IPN: Same situation.
- Ulcers are still a significant problem
- *Yersinia ruckeri*: Same situation
- AGD established in large parts of Norway. Positive detection (PCR) throughout the year, but a controlled situation.
- Production losses still high, but several companies shows decreasing losses.

- G.salaris: More rivers recovered



Thank you for your attention

